Complete Summary

GUIDELINE TITLE

Staging laparoscopy for gastric cancer. In: Diagnostic laparoscopy guidelines.

BIBLIOGRAPHIC SOURCE(S)

Staging laparoscopy for gastric cancer. In: Society of American Gastrointestinal and Endoscopic Surgeons (SAGES). Diagnostic laparoscopy guidelines. Los Angeles (CA): Society of American Gastrointestinal and Endoscopic Surgeons (SAGES); 2007 Nov. p. 35-9.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Society of American Gastrointestinal and Endoscopic Surgeons (SAGES). SAGES guidelines for diagnostic laparoscopy. Los Angeles (CA): Society of American Gastrointestinal and Endoscopic Surgeons (SAGES); 2002 Mar. 5 p.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Gastric cancer

GUIDELINE CATEGORY

Diagnosis
Evaluation

CLINICAL SPECIALTY

Gastroenterology
Oncology
Surgery

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

- To assist surgeons' decisions about the appropriate use of staging laparoscopy in patients with gastric cancer
- To update the previous 2002 guidelines on this topic

TARGET POPULATION

Patients with T3 or T4 gastric cancer without evidence of lymph node involvement or distant metastases on high quality preoperative imaging

INTERVENTIONS AND PRACTICES CONSIDERED

Staging laparoscopy in patients with gastric cancer

MAJOR OUTCOMES CONSIDERED

- Procedure-related/intraoperative complications
- Procedure-related morbidity
- Time to initiation of treatment
- Postoperative hospital length of stay
- Mortality

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

A systematic literature search of MEDLINE for the period 1995-2005 was limited to English language articles. The search strategy is shown in Figure 1 in the original guideline document. Using the same strategy, the Cochrane database of evidence-based reviews and the Database of Abstracts of Reviews of Effects (DARE) were searched.

Abstracts were reviewed by three committee members and into the following categories:

- Randomized studies, meta-analyses, and systematic reviews
- Prospective studies
- Retrospective studies
- Case reports
- Review articles

Randomized controlled trials, meta-analyses, and systematic reviews were selected for further review along with prospective and retrospective studies that included at least 50 patients; studies with smaller samples were reviewed when other available evidence was lacking. The most recent reviews were also included. All case reports, old reviews, and smaller studies were excluded.

The reviewers graded the level of evidence of each article and manually searched the bibliographies for additional articles that may have been missed by the search. Any additional relevant articles were included in the review and grading.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Level I	Evidence from properly conducted randomized, controlled trials
Level II	Evidence from controlled trials without randomization Or Cohort of case-control studies Or Multiple time series, dramatic uncontrolled experiments
Level III	Descriptive case series, opinions of expert panels

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

To maximize the efficiency of the review, articles were divided into three subject categories:

- Staging laparoscopy for cancer
- Diagnostic laparoscopy for acute conditions
- Diagnostic laparoscopy for chronic conditions

Reviewers graded the level of each article (see "Rating Scheme for the Strength of the Evidence.")

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The guidelines were developed under the auspices of the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) and revised by the SAGES Guidelines Committee.

The statements included in this guideline are the product of a systematic review of published work on the topic, and the recommendations are explicitly linked to the supporting evidence. The strengths and weaknesses of the available evidence are described and expert opinion sought where the evidence is lacking. This is an update of previous guidelines on this topic (last revision 2002) as new information has accumulated.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Scale Used for Recommendation Grading

Grade A	Based on high-level (level I or II), well-performed studies with uniform interpretation and conclusions by the expert panel
Grade B	Based on high-level, well-performed studies with varying interpretation and conclusions by the expert panel
Grade C	Based on lower-level evidence (level II or less) with inconsistent findings and/or varying interpretations or conclusions by the expert panel

COST ANALYSIS

The literature was reviewed for published cost analyses. There are no available data on the cost-effectiveness of staging laparoscopy for gastric cancer.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The recommendations of each guideline undergo multidisciplinary review and are considered valid at the time of production based on the data available. This

statement was reviewed by the Board of Governors of the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES), November 2007.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions of the levels of evidence (**I, II, III**) and grades of the recommendations (**A, B, C**) are provided at the end of the "Major Recommendations" field.

General Recommendations for Diagnostic Laparoscopy

Diagnostic laparoscopy is a safe and well tolerated procedure that can be performed in an inpatient or outpatient setting under general or occasionally local anesthesia with intravenous sedation in carefully selected patients. Diagnostic laparoscopy should be performed by physicians trained in laparoscopic techniques who can recognize and treat common complications and can perform additional therapeutic procedures when indicated. During the procedure, the patient should be continuously monitored, and resuscitation capability must be immediately available. Laparoscopy must be performed using sterile technique along with meticulous disinfection of the laparoscopic equipment. Overnight observation may be appropriate in some outpatients.

Staging Laparoscopy for Gastric Cancer

Technique

The patient is placed in the supine position, and pneumoperitoneum is established. A 30-degree laparoscope through an umbilical port is recommended. If present, ascitic fluid is aspirated and sent for cytology. In the absence of ascites, 200 cc of normal saline can be instilled into the peritoneal cavity and aspirated from the pelvis and bilateral subdiaphragmatic spaces for cytologic examination. Full inspection of the peritoneal cavity helps evaluate for peritoneal or liver metastases. Laparoscopic ultrasound may aid in the detection of deep hepatic lesions. If no metastatic disease is discovered, then the left lateral lobe of the liver is elevated to expose the entire stomach. The perigastric nodes along the greater and lesser curvature are inspected and biopsied if needed. In addition, the porta hepatic and gastrohepatic ligaments are inspected carefully. Next, the gastric tumor itself is inspected for extra-serosal invasion and infiltration into surrounding structures. If the tumor is posterior, then the lesser sac must be accessed to gain appropriate visualization.

Indications

- Patients with T3 or T4 gastric cancer without evidence of lymph node or distant metastases on high quality preoperative imaging

Recommendations

Staging laparoscopy can be performed safely in patients with gastric cancer (**Grade B**). The procedure should be considered for patients with T3 or T4 tumors who are thought to have localized or locally advanced disease on high quality preoperative imaging (**Grade B**). In contrast, the procedure has a very low yield in patients with early stage disease (T1 or T2) and should therefore be avoided in this patient population (**Grade B**).

For details of the rationale for the procedure and its diagnostic accuracy, see the original guideline document.

Definitions:

Levels of Evidence

Level I	Evidence from properly conducted randomized, controlled trials
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Level III	Descriptive case series, opinions of expert panels

Scale Used for Recommendation Grading

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Grade C	Based on lower-level evidence (level II or less) with inconsistent findings and/or varying interpretations or conclusions by the expert panel

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Accurate preoperative staging determines the most appropriate therapy for gastric cancer. Staging laparoscopy can identify patients with locally advanced disease and metastasis that may be best treated with neoadjuvant or palliative chemotherapy rather than surgical resection. These patients may potentially be spared the risks and complications of a non-therapeutic laparotomy and may have a shorter convalescence period with earlier start of chemotherapy.

POTENTIAL HARMS

- Procedure- and anesthesia-related complications (see "Procedure-related Complications and Patient Outcomes" section in the original guideline document)
- False negative studies that lead to unnecessary laparotomy
- Delay in definitive treatment when the procedure does not coincide with planned laparotomy
- Unnecessary cost if procedure has a very low yield
- Potential adverse oncologic effects of the procedure

CONTRAINDICATIONS

CONTRAINDICATIONS

- Gastric cancers complicated by obstruction, hemorrhage, or perforation in need of palliative surgery
- Patients with early stage gastric cancer (T1 or T2) should proceed to surgical resection without staging laparoscopy.
- Severe upper abdominal adhesions from prior surgery that may preclude the procedure

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

Clinical practice guidelines are intended to indicate the best available approach to medical conditions as established by systematic review of available data and expert opinion. The approach suggested may not be the only acceptable approach given the complexity of the health care environment. These guidelines are intended to be flexible, as the surgeon must always choose the approach best suited to the patient and variables in existence at the time of the decision.

Limitations of the Available Literature

The quality of the available literature for staging laparoscopy in gastric cancer is limited, since no level I evidence exists. In addition, studies differ in their technique and use of laparoscopic ultrasound and peritoneal washings. Many reports do not clearly state preoperative imaging or postoperative pathology. The

impact of the surgeon's expertise in the diagnostic accuracy of the procedure is unknown. The reported data are not consistent across studies, making their analysis difficult.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Foreign Language Translations
Patient Resources

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1998 Apr (revised 2007 Nov)

GUIDELINE DEVELOPER(S)

Society of American Gastrointestinal and Endoscopic Surgeons - Medical Specialty Society

SOURCE(S) OF FUNDING

Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)

GUIDELINE COMMITTEE

Guidelines Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Members of the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) disclose potential conflicts of interest and pertinent financial relationships prior to serving as faculty for SAGES-sponsored educational events, delivering presentations at scientific meetings, etc. Additionally, members of SAGES Committees disclose their potential conflicts of interest and pertinent financial relationships annually as a condition of committee membership.

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GUIDELINE AVAILABILITY

Electronic copies: Available from the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) Web site.

Print copies: Available from the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES), 11300 W. Olympic Blvd., Suite 600, Los Angeles, CA 90064; Web site: www.sages.org.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

The following is available:

- Patient information for diagnostic laparoscopy from SAGES. Available in English and Polish from the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) Web site.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC STATUS

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